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# Economic Contribution of the Viroqua Food Cooperative

A REPORT OF THE ECONOMIC IMPACT ANALYSIS PROGRAM

Authored by Brigid Tuck



**PROGRAM SPONSOR:** EQUITY PLUS, LLC  
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July 2018

Authored by Brigid Tuck

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# Table of Contents

<b>EXECUTIVE SUMMARY</b>	<b>3</b>
<b>INTRODUCTION</b>	<b>6</b>
<b>ECONOMIC CONTRIBUTION OF THE VIROQUA FOOD COOPERATIVE</b>	<b>7</b>
Current Viroqua Food Cooperative Operational Effects, 2017	8
Future Viroqua Food Cooperative Operational Effects, 2023	9
Expansion of Viroqua Food Cooperative, Construction Effects, 2016-2018	11
Impact on Wisconsin Economy	12
<b>THE DEMOGRAPHICS OF VERNON COUNTY, WISCONSIN</b>	<b>13</b>
Population Change, Age, and Sex	13
Population Diversity	15
Income and Poverty	16
Labor Force Participation	16
Access to Vehicles	17
<b>THE ECONOMY OF VERNON COUNTY, WISCONSIN</b>	<b>17</b>
Employment Trends	17
Composition of the Economy	19
The Retail Sector	21
Commuting Patterns	23
<b>SUPERMARKETS AND GROCERY STORES IN THE UNITED STATES</b>	<b>24</b>
Industry Outlook	24
Food Deserts	25
Food Cooperatives in the United States	26
<b>NOTES ON THE ANALYSIS</b>	<b>26</b>
<b>APPENDIX: DEFINITIONS AND TERMS</b>	<b>27</b>



## EXECUTIVE SUMMARY: ECONOMIC CONTRIBUTION OF THE VIROQUA FOOD COOPERATIVE

More than 3,600 members own the Viroqua Food Cooperative in Viroqua, Wisconsin. The cooperative promotes health and supports local agricultural operations. It also serves as a retail outlet for local growers and producers. In 2015, the Viroqua Food Cooperative completed a market study analysis. Study results suggested the market could support an expanded retail store. The additional space could feasibly include a bakery, a wider selection of meat, poultry, and seafood, and an expanded deli. Current store departments could also benefit from a larger footprint.

Viroqua Food Cooperative is funding the expansion project through a variety of sources, including owner capital, a local bank, a Wisconsin Community Development Investment grant, and a federal New Markets Tax Credit. As part of the New Markets Tax Credit, Equity Plus, LLC hired University of Minnesota to conduct a study measuring the economic contribution of the food cooperative. This analysis includes an overview of the demographics and economy of Vernon County (home to Viroqua), along with trends in the grocery and supermarket industry.

### Economic Contribution

Viroqua Food Cooperative's expansion will contribute to the economy in two ways. First, the cooperative will expand its operations. On an annual basis, the cooperative will employ additional workers, purchase more local foods, and pay more in wages and salaries. Second, the cooperative is investing in equipment and facility space. This will be a short-term boost to the economy during the construction phase. Since the operational increase is annual and the construction increase is short-term, this analysis separates the two components.

**Current Viroqua Food Cooperative Operational Effects:** In 2017, the Viroqua Food Cooperative's total sales were \$7.5 million. Of those sales, 33 percent were from products made or grown within the cooperative's local designation of a 100-mile radius. The cooperative paid its 69 employees \$2.0 million in salaries, wages, and benefits. In total, in 2017, the Viroqua Food Cooperative generated an estimated \$12.3 million of economic activity in Vernon County, including \$3.7 million in labor income. The cooperative supported 109 jobs in the county. The industries most impacted from the food cooperative's operations were organic crop farming, wholesale trade, and agriculture support services.

**Future Viroqua Food Cooperative Operational Effects:** The cooperative plans to be at full expanded capacity in 2023. It anticipates spending \$10.6 million to operate, including \$2.8 million in wages, salaries, and benefits. The cooperative plans to employ 95 to 100 people within three years of expansion. In total, after expansion, the Viroqua Food Cooperative will contribute an estimated \$17.6 million annually to Vernon County's economy. This includes \$5.0 million of labor income. The cooperative will also support 160 jobs. These effects will be annual and continue as long as the cooperative operates at projected levels.



**Expansion of Viroqua Food Cooperative Construction Effects:** The cooperative's expansion-related construction began in 2016 and is expected to end in 2018. The Viroqua Food Cooperative anticipates expansion construction costs will be \$7.0 million. In total, expansion construction will contribute an estimated \$7.2 million in economic activity to Vernon County. This includes \$2.5 million in labor income. The construction phase will support an estimated 65 jobs. These effects will impact the economy during the construction and expansion phase. Once construction is completed, the effects will dissipate. The industries experiencing the most impact from the expansion will include food services and drinking places, ambulatory health care, and professional and business services.

**Impact on Wisconsin Economy:** Aside from Vernon County, the Viroqua Food Cooperative has an impact on Wisconsin's economy. In 2023, at full expanded capacity, the Viroqua Food Cooperative will contribute an estimated \$20.3 million in economic activity to the state. This includes \$6.1 million in labor income and 170 jobs. These effects will be annual.

### Demographics

Vernon County is a growing county in Southeastern Wisconsin. Like the state as a whole, it is primarily white, but growth is occurring in non-white populations. Incomes in Vernon County are below the state average, while poverty is slightly higher. A growing population, along with residents of prime grocery shopping age, supports market potential for a food cooperative.

**Population:** In 2017, the population of Vernon County was 30,900. Viroqua is the largest community with a population of 4,400. Slightly more than one-third of residents are 35 to 64 years old, a primary market for grocery stores.

**Diversity:** Vernon County's population is primarily white, non-Hispanic. However, growth has mostly been in the non-white, Hispanic population.

**Income and Poverty:** Vernon County residents have slightly lower household and per capita incomes compared to both the state and the nation. Poverty rates are slightly higher. There are more than 1,000 households without access to a vehicle, which affects the ability to shop for groceries. This statistic partially represents Vernon County's Amish community who travel by horse and buggy.

### Economy

Vernon County also has a growing economy. Current economic strengths include health care, agriculture, management of companies (corporate headquarters), transportation, and warehousing.

**Job Change:** The number of jobs in Vernon County has grown by 9 percent since 2001 to 10,700 in 2017. Job growth has varied by industry. The top three job-adding industries in Vernon County include health care and social assistance, the management of companies and enterprises, and transportation and warehousing.

**Industry Strengths:** Government is the largest employer (1,900 jobs) in Vernon County. Health care and social assistance is the second largest with 1,800 jobs. Retail trade is the third largest source of employment in the county. The highest concentrations of jobs (compared to the nation) are in agriculture and forestry, utilities, and management of companies. The Viroqua Food Cooperative ties into the agricultural base of the county, relying on local producers for products.

**Earnings:** The average earnings per job in Vernon County is \$40,500. In comparison, Wisconsin's average earnings per job is \$45,200. The Vernon County average earnings per job in the retail industry (which includes grocery stores) is \$30,400.

**Retail Trade:** Between 2001 and 2017, the number of retail trade jobs dropped by 5 percent in Vernon County. Most of that decline occurred between 2006 and 2012, which is consistent with the effects of the Great Recession.

**Staffing:** Twenty-six percent of the national retail sales workforce are salespeople, followed by 18 percent as cashiers and 9 percent as stock clerks and order fillers. The most common retail jobs do not require formal education, and training is typically short-term and on the job. Thus, barriers to job entry are relatively low (making hiring easier). However, as of April 2018, unemployment is low in Wisconsin (2.9 percent), making competition for workers tight. Lower wage, lower skill positions will be competitive, making hiring and retaining workers more difficult in the short-term.

### **Supermarkets and Grocery Stores in the United States**

National industry trends will affect the profitability of the Viroqua Food Cooperative.

**Industry Trends:** According to IBISWorld, supermarket and grocery store sales have increased nationally and are expected to continue rising. However, competition is intense. Mass merchants compete primarily on price. Fresh format stores provide consumers with fewer, store-branded items that are cheaper to produce. And the rise of online grocery shopping will continue to drive competition. As a result, sales may rise in this market, but profitability may drop.

Shifting consumer preferences are also critical in this market. Consumers are moving toward premium, organic, and all-natural foods. Driving this change is the rising influence of millennials. Millennials tend to be health conscious and value driven, which may affect where and how they shop for groceries. They can also be price sensitive and less brand driven. Convenience remains important for customers (regardless of age) and many choose to shop in close proximity to work or home.

**Food Deserts:** Food deserts are low-income areas that lack access to healthy and affordable food. Residents of these areas typically do not have direct access to a full-scale grocery store. Instead, they rely on convenience stores for their primary shopping. Barriers to a full-scale grocery store include physical, economic, and attitudinal. In rural areas, like Vernon County, these barriers might include long distances to drive, lack of a vehicle or public transportation, and products not meeting consumer budgets or preferences.

Vernon County has two census tracts that meet the definition of a food desert. However, multiple census tracts around Vernon County also qualify as food deserts. Clearly, there is a need for access to healthy food options in and around Viroqua.

**Food Cooperatives in the United States:** Food cooperatives, such as Viroqua Food Cooperative, have a long history in the United States, beginning in the 1850s. The University of Wisconsin explored this history. They found food cooperatives have experienced periods of growth and decline, often driven by consumer interest and participation. Cooperative members want their cooperatives to provide price, quality, and selection advantages.

**Notes on the Analysis:** The data, analysis, and findings described in this report are specific to the geography, period, and project requirements of the Viroqua Food Cooperative. Findings are not transferable. University of Minnesota Extension neither approves nor endorses the use or application of findings and other content in this report by other jurisdictions or businesses.



## INTRODUCTION

***“The Viroqua Food Cooperative combines a commitment to natural foods, superior customer service and the building of a cooperatively run business. We emphasize selling organic and local foods and products to promote the long-term health of individuals and the environment. As member-owners and as a center for community, we offer the opportunity to create together a work of enduring value.” ~ Viroqua Food Cooperative Mission***

More than 3,600 members own the Viroqua Food Cooperative in Vernon County, Wisconsin. Its 60-plus employees promote health and support local agricultural operations. The cooperative is a retail outlet for local growers and producers. It is also committed to environmental stewardship and incorporates a number of green building principles.

In 2015, the Viroqua Food Cooperative completed a market study analysis. Study results suggested the market could support an expanded retail store. The additional space could feasibly include a bakery, a wider selection of meat, poultry, and seafood, and an expanded deli. Current store departments could also benefit from a larger footprint. Based on this information, the Viroqua Food Cooperative’s website highlights the addition of the following:

- “A significantly larger deli, which includes: a full-service deli with made-to-order food, larger self-service hot/cold food bars, smoothie bar, cheese/meat slicing, larger seating area, and other items deemed appropriate (rotisserie chicken, hot sandwich program, etc.).
- A bakery with freshly-baked bread, made-from-scratch baked goods, plus a greater selection of wheat-free and other specialty goods.
- A meat department with room to grow for future meat processing, greater selection of fresh/frozen meats, seafood, and value-added meats (e.g. salamis, cured meats).
- Larger fresh produce department for increased local and organic products.
- Additional cash register stations, bathrooms, and a customer service desk.
- Increasing public seating indoors and outdoors, and an educational multi-purpose room.
- Improved access and parking to customers.
- Environmentally sustainable elements of the project include an electric car charging station, LED lighting, highly energy efficient refrigeration, reclaimed heat for hot water needs, natural daylighting, and more.”<sup>1</sup>

In 2016, the Viroqua Food Cooperative began plans to move forward with an expansion. Construction of the expansion will be complete in 2018. The food cooperative anticipates it will be at full capacity by 2023 and has information and updates detailing the expansion on its website.

Viroqua Food Cooperative is funding its expansion project through a variety of sources, including owner capital, a local bank, a Wisconsin Community Development Investment grant, and a federal New Markets Tax Credit. As part of the New Markets Tax Credit, Equity Plus, LLC hired University of Minnesota to conduct a study measuring the economic contribution of the food cooperative. Included in the study is a comprehensive analysis of the demographics and economics of Vernon County, Wisconsin.

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<sup>1</sup> <https://www.viroquafood.coop/expansion-news>



## ECONOMIC CONTRIBUTION OF THE VIROQUA FOOD COOPERATIVE

Total economic contribution is composed of direct, indirect, and induced effects. Calculating the total economic contribution of a business begins with determining its direct effects. Indirect and induced effects are then calculated using input-output models.

Viroqua Food Cooperative's expansion will contribute to the economy in two ways. First, the cooperative will expand its operations. Annually, the cooperative will employ additional workers, purchase more local foods, and pay more in wages and salaries. Second, the cooperative is investing in equipment and facility space. This will be a short-term boost to the economy during the construction phase. Since the operational increase is annual and the construction increase is short-term, this analysis separates the two components.

The direct effects of the Viroqua Food Cooperative include increases in annual operations and investments in equipment and space. To measure the increase in annual operations, the company's current operations (2017) and projected operations (2023) were examined.

Input-output models trace the flow of dollars throughout a local economy and capture the indirect and induced, or secondary, effects of an economic activity. To quantify the indirect and induced effects of the Viroqua Food Cooperative, the direct effects were entered into the input-output model IMPLAN. This analysis uses IMPLAN version 3.0 with SAM multipliers and 2016 data.<sup>2</sup>

**Indirect effects** are those associated with a change in economic activity due to spending for goods and services directly tied to the business. In this case, these are the changes in the local economy occurring because Viroqua Food Cooperative purchases goods (e.g., local foods, real estate, electricity) and related services (e.g., advertising services, accounting, tax preparation). As the Viroqua Food Cooperative makes purchases, this creates an increase in purchases across the supply chain. Indirect effects are the summary of these changes across an economy.

### Types of Effects

**Direct:** Spending and employment by Viroqua Food Cooperative

**Indirect:** Activity generated by Viroqua Food Cooperative's spending for goods and services (business-to-business spending)

**Induced:** Activity generated by Viroqua Food Cooperative's employees' spending (consumer-to-business spending)

**Induced effects** are those associated with a change in economic activity due to spending by the employees of businesses (labor) and by households. These are economic changes related to spending by people directly employed by Viroqua Food Cooperative. They create effects as they make purchases for things like health care, housing, and food. Induced effects also include household spending related to indirect effects.

Economic contribution effects can be measured in terms of output (sales), labor income, and employment. Output is typically the most common result of an economic contribution study. Labor income is also recommended as a measure, because it indicates the economic benefits that accrue for study area residents. Employment includes full-time, part-time, and seasonal employment, not full-time equivalents.

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<sup>2</sup> [www.implan.com](http://www.implan.com)

Vernon County is the primary study area for this analysis. The following sections detail the contribution of Viroqua Food Cooperative in the county. The final section examines its impact on the state of Wisconsin. The study area in this instance matters, since the larger the study area, the more options there are to purchase locally. As a result, the contribution tends to be higher in larger study areas.

**Current Viroqua Food Cooperative Operational Effects, 2017**

This section of the report quantifies the economic contribution of Viroqua Food Cooperative's operations in 2017. This contribution is prior to the expansion's effect on operations and serves as the baseline to compare with the expansion contribution.

**Direct Effects**

In 2017, the Viroqua Food Cooperative's sales were \$7.5 million (Table 1). Of these sales, 33 percent were from products made or grown within the cooperative's local designation of a 100-mile radius. The cooperative paid its employees \$2.0 million in salaries, wages, and benefits. It also spent \$4.7 million for the cost of goods sold (items marketed in the store).

These operating expenditures do not include depreciation. Depreciation is an accounting technique. It does not represent actual spending within the year; therefore, it does not create economic activity.

**Table 1: Viroqua Food Cooperative Operations, 2017**

	Direct (millions)
Cost of goods sold (locally-sourced) <sup>3</sup>	\$1.5
Cost of goods sold (other sourcing)	\$3.1
General and administrative	\$0.9
Labor payments	\$2.0
Total	\$7.5

Source: Viroqua Food Cooperative, Extension  
estimated locally-sourced versus other sourcing

The Viroqua Food Cooperative also employed 69 workers, including full-time and part-time positions (Table 2). Thus, the 2017 direct effect of the Viroqua Food Cooperative included \$7.5 million in output, 69 jobs, and \$2.0 million in labor income. Labor income includes wages, salaries, benefits, and proprietor income.

**Table 2: Direct Effect of Viroqua Food Cooperative Operations, 2017**

	Direct
Output	\$7.5 million
Employment	69
Labor income	\$2.0 million

Source: Viroqua Food Cooperative

<sup>3</sup> Locally-sourced is defined as having been made or grown within a 100 mile radius of the store.

## Total Effects

The input-output model estimates total effects based on direct effects. In 2017, Viroqua Food Cooperative, in total, generated \$12.3 million of economic activity in Vernon County, including \$3.7 million in labor income. The cooperative also supported 109 jobs in the county.

**Table 3: Total Annual Economic Contribution of Viroqua Food Cooperative Operations, FY 2017, Vernon County, Wisconsin**

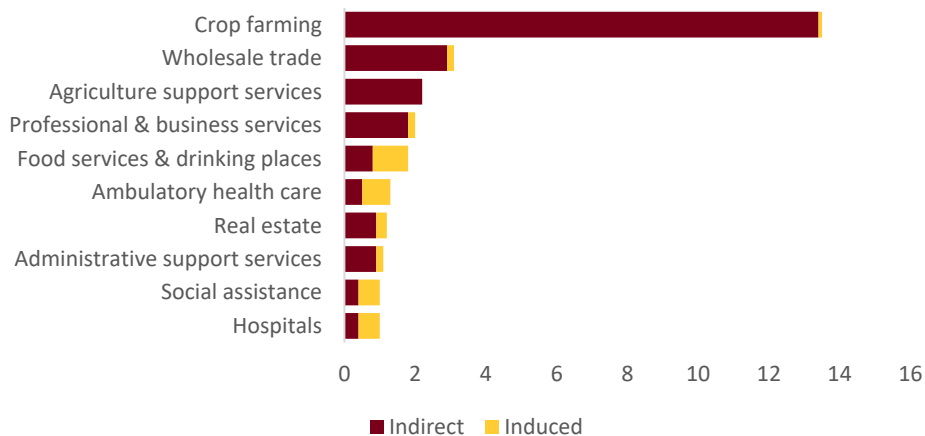
	Direct	Indirect	Induced	Total
Output (millions)	\$7.5	\$3.8	\$1.0	<b>\$12.3</b>
Employment	69	30	10	<b>109</b>
Labor Income (millions)	\$2.0	\$1.4	\$0.3	<b>\$3.7</b>

Estimates by University of Minnesota Extension

## Top Industries Affected

In 2017, the Viroqua Food Cooperative supported 109 jobs in Vernon County. Of those jobs, 69 were at the food cooperative. The additional 40 jobs were in industries across the economy. The industries experiencing the largest impact from the food cooperative's operations were crop farming, wholesale trade, and agriculture support services (Chart 1). Given the food cooperative's mission of purchasing locally-sourced food, it is not unexpected to see high impacts in crop farming (which includes fruit, vegetable, and melon production) and agriculture services. Its impact on wholesale trade is also not unexpected, as wholesale trade includes wholesale grocery suppliers.

**Chart 1: Top Industries Affected by Viroqua Food Cooperative Operations, 2017**



## Future Viroqua Food Cooperative Operational Effects, 2023

This section of the report quantifies the projected economic contribution of Viroqua Food Cooperative's operations in 2023. This is after the expansion's effect on operations and indicates future contributions. The results, therefore, are dependent on the expansion being fully completed and the cooperative operating as anticipated.

## Direct Effects

The Viroqua Food Cooperative's expansion will increase operational capacity. Based on its business plan, Viroqua Food Cooperative anticipates sales of \$10.6 million in 2023.<sup>4</sup> As with prior to the expansion, the majority of expenses will include cost of goods sold (Table 4). The analysis assumes 33 percent of the cost of goods sold will be locally-sourced (made or grown within 100 miles of the cooperative). This could change, however, as the Viroqua Food Cooperative remains committed to finding locally sourced foods.

**Table 4: Viroqua Food Cooperative Operations, Projections for 2023**

	Direct (millions)
Cost of goods sold (locally-sourced)	\$2.2
Cost of goods sold (other sourcing)	\$4.4
General and administrative	\$1.2
Labor payments	\$2.8
Total	\$10.6

Source: Viroqua Food Cooperative, Extension  
estimated locally-sourced versus other sourcing

The 2023 direct effect of the Viroqua Food Cooperative will be an estimated \$10.6 million in output, including \$2.8 million in wages, salaries, and benefits. The cooperative plans to employ 95 to 100 people after its expansion (Table 5).

**Table 5: Direct Effect of Planned Viroqua Food Cooperative Operations, 2023**

	Direct
Output (sales)	\$10.6 million
Employment	95-100
Labor income	\$2.8 million

Source: Viroqua Food Cooperative

## Total Effects

In total, the Viroqua Food Cooperative will contribute an estimated \$17.6 million annually to Vernon County's economy upon expansion (Table 6). This includes \$5.0 million of labor income. The cooperative will also support 160 jobs. These effects will be annual and continue as long as the cooperative operates at projected levels.

**Table 6: Projected Total Annual Economic Contribution of Viroqua Food Cooperative Operations, FY 2023, Vernon County, Wisconsin**

	Direct	Indirect	Induced	Total
Output (millions)	\$10.6	\$5.6	\$1.4	<b>\$17.6</b>
Employment	100	50	10	<b>160</b>
Labor Income (millions)	\$2.8	\$1.9	\$0.3	<b>\$5.0</b>

Estimates by University of Minnesota Extension

<sup>4</sup> As explained, this does not include depreciation.

The top industries impacted by Viroqua Food Cooperative will remain largely the same after expansion. The scale of impact will increase but not the relative order. This does assume the purchasing patterns of the cooperative remain the same (which is anticipated).

### Expansion of Viroqua Food Cooperative, Construction Effects, 2016-2018

In addition to the operational increases resulting from the expansion, the Viroqua Food Cooperative will also add to the economy during the construction phase. Construction is ongoing, having started in 2016 and slated to finish in 2018.

#### Direct Effects

The Viroqua Food Cooperative anticipates the expansion's construction costs will be \$7.0 million (Table 7). The largest component of this cost will be on-site construction. The cooperative will also spend \$1.4 million to purchase new equipment.

**Table 7: Viroqua Food Cooperative Expansion, Construction Costs**

	Direct
On-site construction	\$3,525,000
Equipment	\$1,400,000
Site Acquisition	\$117,120
Additional inventory	\$168,000
Fees, interest, professional services, and working capital	\$1,805,599
<b>Total</b>	<b>\$7,015,719</b>

Source: Viroqua Food Cooperative

The total direct effect of Viroqua Food Cooperative's expansion construction will be an estimated \$5.3 million in Vernon County (Table 8). Equipment is highly specialized and therefore not likely to be purchased in Vernon County. Therefore, it cannot create additional economic activity. Based on construction costs, the input-output model estimates 50 direct jobs and \$2.0 million in direct labor income.

**Table 8: Direct Effect of Viroqua Food Cooperative Expansion in Vernon County, Construction**

	Direct
Output (sales)	\$5.3 million
Employment	50
Labor income	\$2.0 million

Source: Viroqua Food Cooperative & IMPLAN model

#### Total Effects

In total, the expansion construction of Viroqua Food Cooperative will contribute an estimated \$7.2 million in economic activity to Vernon County (Table 9). This includes \$2.5 million in labor income. The construction phase will support an estimated 65 jobs. These effects will occur in the economy

during the construction and expansion phase. Once construction is completed, the effects will dissipate.

**Table 9: Total Short-Term Economic Contribution of Viroqua Food Cooperative Expansion, Vernon County, Wisconsin**

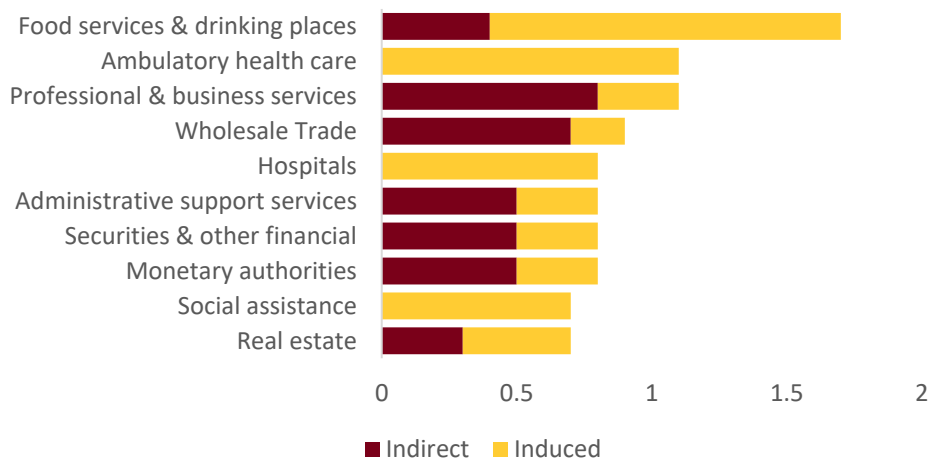
	Direct	Indirect	Induced	Total
Output (millions)	\$5.3	\$0.8	\$1.1	<b>\$7.2</b>
Employment	50	5	10	<b>65</b>
Labor Income (millions)	\$2.0	\$0.2	\$0.3	<b>\$2.5</b>

Estimates by University of Minnesota Extension

### Top Industries Affected

Viroqua Food Cooperative’s expansion construction will support 65 jobs in the county. Of those, 50 will be at the construction site. The remaining 15 will be at industries across the county. The industries experiencing the highest impact from the expansion include food services and drinking places, ambulatory health care, and professional and business services (Chart 2).

**Chart 2: Top Industries Affected by Expansion of Viroqua Food Cooperative Construction, 2016-2018**



### Impact on Wisconsin Economy

Viroqua Food Cooperative also has an impact on the economy of Wisconsin. In 2017, it contributed an estimated \$14.2 million in economic activity to the state. This includes \$4.3 million in labor income and 119 jobs (Table 10).<sup>5</sup>

<sup>5</sup> Wisconsin is a separate study area from Vernon County. The Wisconsin numbers include the impact on Vernon County. The two should not be added.

**Table 10: Total Annual Economic Contribution of Viroqua Food Cooperative Operations, FY 2017, Wisconsin**

	Direct	Indirect	Induced	Total
Output (millions)	\$7.5	\$5.0	\$1.7	<b>\$14.2</b>
Employment	69	40	10	<b>119</b>
Labor Income (millions)	\$2.0	\$1.8	\$0.5	<b>\$4.3</b>

Estimates by University of Minnesota Extension

Upon completion of its expansion in 2023, Viroqua Food Cooperative will contribute an estimated \$20.3 million in economic activity to the state. This includes \$6.1 million in labor income and 170 jobs (Table 11). These effects will be annual, continuing as long as the cooperative operates at these levels.

**Table 11: Projected Total Annual Economic Contribution of Viroqua Food Cooperative Operations, FY 2023, Wisconsin**

	Direct	Indirect	Induced	Total
Output (millions)	\$10.6	\$7.4	\$2.3	<b>\$20.3</b>
Employment	100	50	20	<b>170</b>
Labor Income (millions)	\$2.8	\$2.6	\$0.7	<b>\$6.1</b>

Estimates by University of Minnesota Extension

Finally, Viroqua Food Cooperative's expansion construction will also add to Wisconsin's economy. In total, the expansion construction will contribute an estimated \$11.3 million in economic activity, including \$4.1 million in labor income and 70 jobs. In this scenario, equipment purchases were factored back into the direct effect, since the equipment could be available within the state. These effects will be short-term, ending when construction is finished.

**Table 12: Total Short-Term Economic Contribution of Viroqua Food Cooperative Expansion, Wisconsin**

	Direct	Indirect	Induced	Total
Output (millions)	\$6.7	\$1.9	\$2.7	<b>\$11.3</b>
Employment	40	10	20	<b>70</b>
Labor Income (millions)	\$2.6	\$0.6	\$0.9	<b>\$4.1</b>

Estimates by University of Minnesota Extension

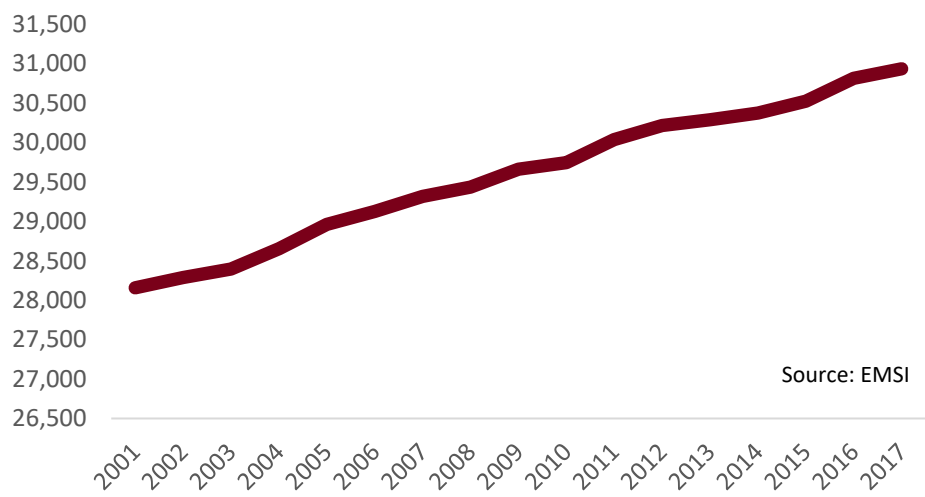
## THE DEMOGRAPHICS OF VERNON COUNTY, WISCONSIN

To fully understand the role of Viroqua Food Cooperative in Vernon County, one must understand the demographic and economic profile of the county. This section explores the demographics of Vernon County, Wisconsin.

### Population Change, Age, and Sex

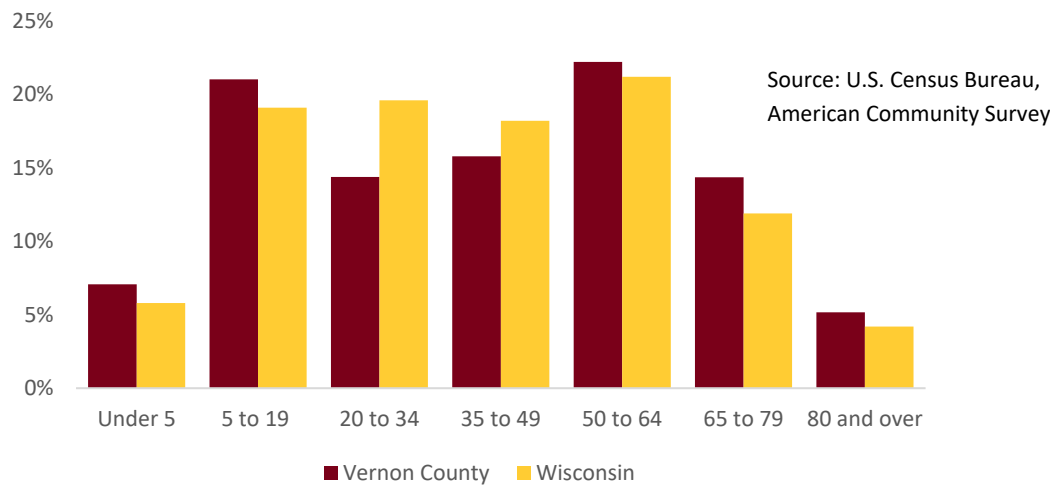
Viroqua is located in Vernon County, Wisconsin. In 2017, the population of Vernon County was 30,900. The population of the county grew steadily during the 2000s (Chart 3). Viroqua itself has a population of 4,400 (14 percent of the county). It is the largest community in Vernon County.

**Chart 3: Population, Vernon County, 2001-2017**



Vernon County’s population tends to be both younger (under 19) and older (over 50), compared to Wisconsin as a whole (Chart 4). Roughly one-quarter of Vernon County residents are under the age of 19. They are likely living at home with grocery purchases made by parents or guardians. Roughly one-third (38 percent) of residents are 35 to 64 years old, a primary market for grocery stores.

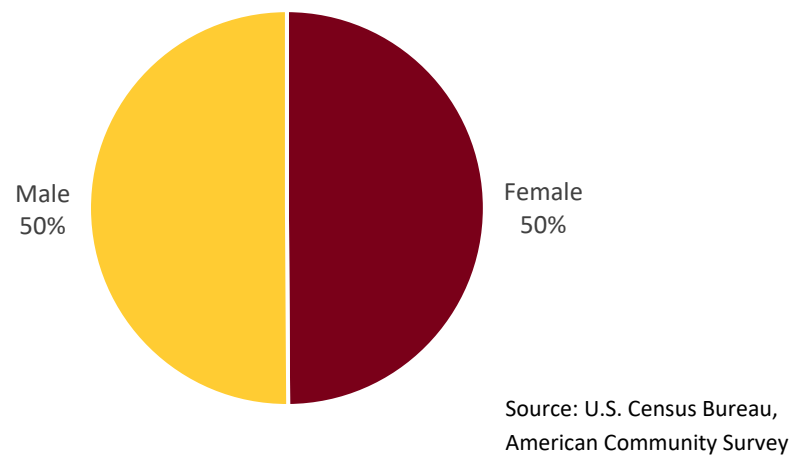
**Chart 4: Population by Age, Vernon County and Wisconsin, 2016**





Vernon County’s population is equally divided between males and females (Chart 5).

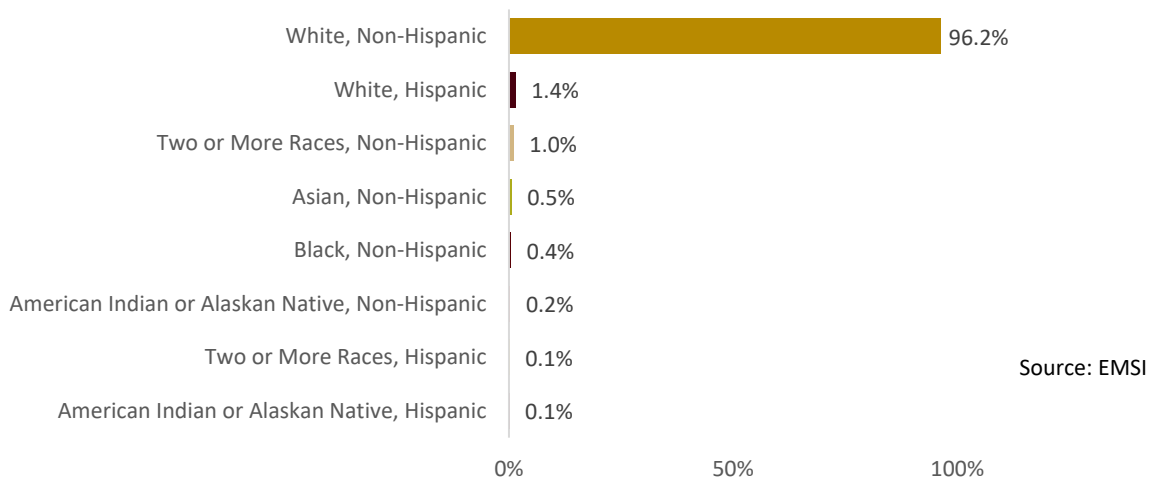
**Chart 5: Population by Sex, Vernon County, 2016**



**Population Diversity**

Vernon County’s population is primarily white, non-Hispanic (96.2 percent). About 1 percent of the population is white, Hispanic and 1 percent is two or more races, non-Hispanic (Chart 6).

**Chart 6: Population by Race/Ethnicity**



While current racial diversity is low in the county, the fastest rates of population growth are among people of color (Table 13). The number of black, non-Hispanic residents increased by 482 percent between 2001 and 2017 and is the fastest growing racial demographic. Meanwhile, the white, non-Hispanic population grew at a modest 7 percent.

**Table 13: Percent Change in Population by Race/Ethnicity, 2001-2017, Vernon County, Wisconsin**

Race/Ethnicity	Percent Change
White, Non-Hispanic	7%
Black, Non-Hispanic	482%
American Indian or Alaskan Native, Non-Hispanic	118%
Asian, Non-Hispanic	166%
Native Hawaiian or Pacific Islander, Non-Hispanic	267%
Two or more races, Non-Hispanic	170%
White, Hispanic	121%
Black, Hispanic	167%
American Indian or Alaskan Native, Hispanic	60%
Two or more races, Hispanic	380%

Source: EMSI

## Income and Poverty

Vernon County's median household income (\$49,476) and per capita income (\$24,414) are below both Wisconsin and the United States as a whole (Table 14).

**Table 14: Income and Poverty, 2012-2016 American Community Survey Estimates, in 2016 dollars**

	Vernon County	Wisconsin	United States
Median household income (2012-2016)	\$49,476	\$54,610	\$55,322
Percent of households with earnings from employment	76%	78%	78%
Per capita income in the past 12 months (2012-2016)	\$24,414	\$29,253	\$29,829
Persons in poverty, percent	16.5%	11.8%	12.7%

Source: United State Census

## Labor Force Participation

In Vernon County, 59 percent of the population over the age of 16 is in the labor force. This is lower than both the state and national average (Table 15). Labor force participation rates for families are lower, too. In the county, 54 percent of families with children under six have all parents in the labor force, and 59 percent of families with children 6 to 12 years old have all parents in the labor force.

**Table 15: Labor Force Participation, 2012-2016 American Community Survey Estimates**

	Vernon County	Wisconsin	United States
Percent of population over 16 in labor force	59%	67%	64%
Percent of families with all parents in family in labor force (children are under 6 years old)	54%	73%	65%
Percent of families with all parents in family in labor force (children are 6 to 17 years old)	59%	78%	71%

Source: United State Census

### Access to Vehicles

An estimated 1,100 households in Vernon County do not have access to a vehicle (Table 16). Since 86 percent of the county's residents commute via a vehicle, transportation is clearly important to be able to work. It also affects the Viroqua Food Cooperative, as many people use personal vehicles to shop for and transport groceries. For households without a vehicle, having options like home delivery or public transportation can be critical to accessing healthy food options.<sup>6</sup> Of note is that Vernon County is home to an Amish community who travel by horse and buggy and do not own vehicles.

**Table 16: Access to Vehicles, 2012-2016 American Community Survey Estimates**

	Vernon County	Wisconsin	United States
Households with no vehicle available	1,100	163,500	10,628,500
Percent commuting to work via car, truck, or van (either alone or in carpool)	86%	89%	86%

Source: United State Census

## THE ECONOMY OF VERNON COUNTY, WISCONSIN

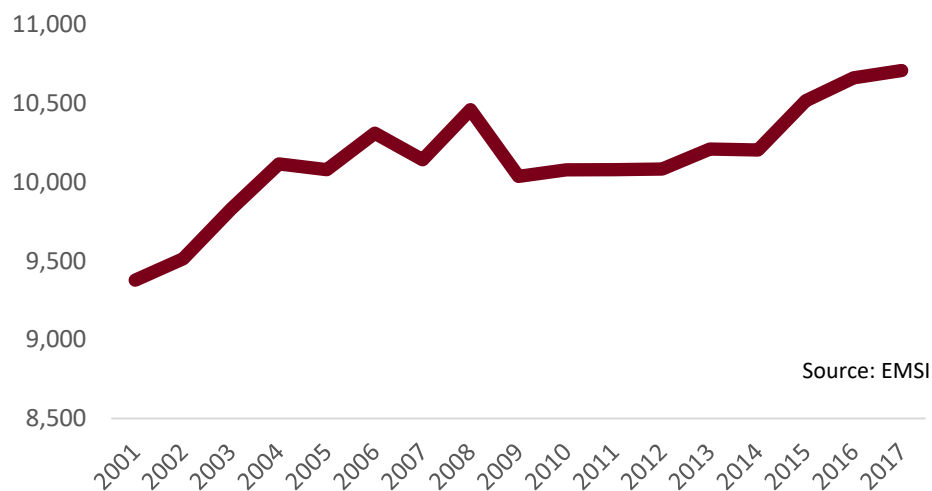
This section explores the economy of Vernon County, Wisconsin.

### Employment Trends

Aside from the Great Recession, the number of jobs in Vernon County has grown steadily since 2001 (Chart 7). Overall, the number of jobs increased from 9,800 in 2001 to 10,700 in 2017. This is a 9 percent increase. Like most counties in the United States, the number of jobs in Vernon County fell during the Great Recession (2008-2009); however, Vernon County has recovered. The number of jobs in 2017 was above its peak in 2008.

<sup>6</sup> To the author's knowledge, Viroqua Food Cooperative is not planning home delivery. This is merely an observation.

**Chart 7: Number of Jobs, Vernon County, Wisconsin, 2001-2017**



Job growth has varied by industry. The top three job-adding industries in Vernon County include health care and social assistance, the management of companies and enterprises, and transportation and warehousing (Table 17). The top job loss industries are other services, government, and retail trade.

Shift share analysis helps parse out sources of growth. The national growth rate indicates how the national economy grew during a particular period. A positive national growth component reflects growth in the national economy. The industry mix indicates how the industry changed at the national level. A positive industry mix number shows growth in the industry.

The competitive effect shows how the industry performed at the regional level. A positive competitive effect indicates the regional industry outperformed national and industry trends. A negative competitive effect means the regional industry should have grown faster, given industry and national trends.

**Table 17: Shift-Share Analysis, Vernon County, Wisconsin, 2017**

	2001 Jobs	2017 Jobs	Change 01-07	National Growth	Industry Mix	Competitive Effect	Location Quotient
<b>Top Job Adding Industries</b>							
Health care and social assistance	1,345	1,811	466	138	469	-141	1.34
Management of companies and enterprises	38	398	360	4	8	348	2.63
Transportation and Warehousing	242	593	351	25	18	308	1.6
<b>Top Job Loss Industries</b>							
Other services	502	382	-120	52	-3	-168	0.74
Government	1,998	1,925	-73	206	-100	-180	1.17
Retail trade	1,255	1,188	-67	129	-85	-112	1.08

Source: EMSI

Health care and social assistance was the fastest growing industry in the region and at the national level. Given the national growth of the industry, the number of jobs in health care and social assistance should have increased by more in Vernon County.

Management of companies and enterprises, however, did not grow that quickly at the national level. Thus, its growth in Vernon County can be contributed to local conditions. It may be that one business moved its headquarters to the region, thus driving the increase. Or, it is possible local businesses already located in the area increased their employment.

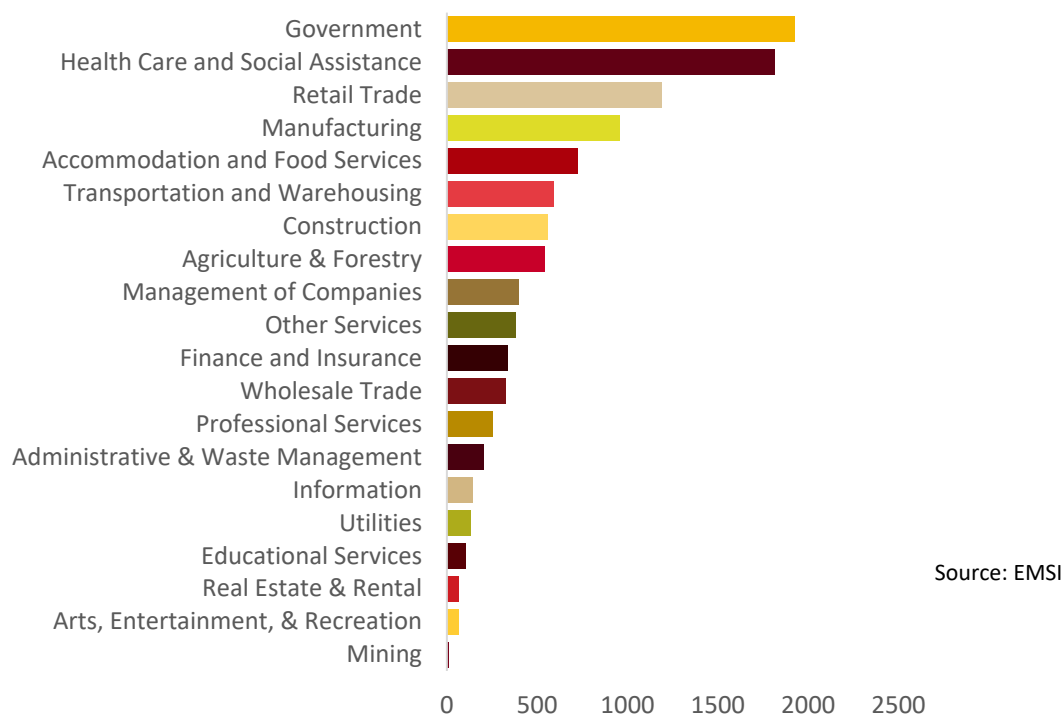
Grocery stores are part of the retail trade sector. The number of retail trade jobs in Vernon County fell by 67 between 2001 and 2017. This was a greater rate of decrease than anticipated, based on industry and national trends. The additional jobs created by Viroqua Food Cooperative, therefore, would be a positive change for Vernon County.

## Composition of the Economy

In terms of number of jobs, government is the largest employer (1,900 jobs) in Vernon County (Chart 8). The government includes federal, state, and local employment. This includes K-12 education, which is often a major employer in rural communities.

Health care and social assistance is the second largest with 1,800 jobs. Given the growth in health care and social assistance and the decline in government, it is not unreasonable to assume this will switch in the next few years. Retail trade is the third largest source of employment in the county.

**Chart 8: Employment by Industry, Vernon County, 2017**

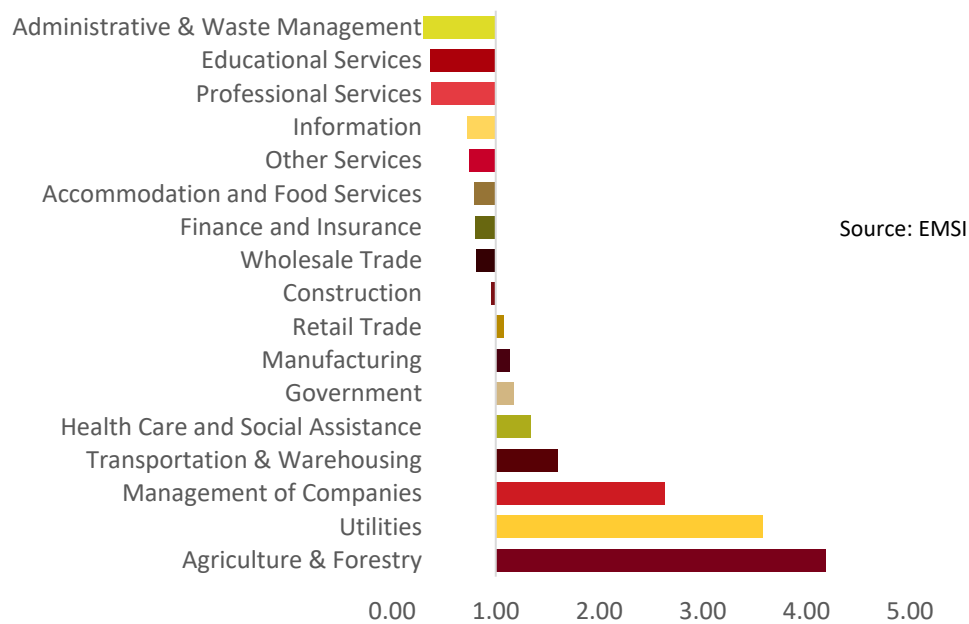


Location quotients illustrate the concentration of jobs in an industry. A location quotient of one indicates the percent of jobs in an industry is equal to the percent of jobs in the industry nationally. A location quotient of greater than one indicates a higher concentration of jobs in a particular

industry. Conversely, a location quotient less than one indicates fewer jobs in an industry relative to the nation.

The highest location quotients in Vernon County are in agriculture and forestry (4.2), utilities (3.6), and management of companies (2.6). These are the relative strengths of Vernon County (Chart 9). The Viroqua Food Cooperative ties into the agricultural-base of the county, relying on local producers for products.

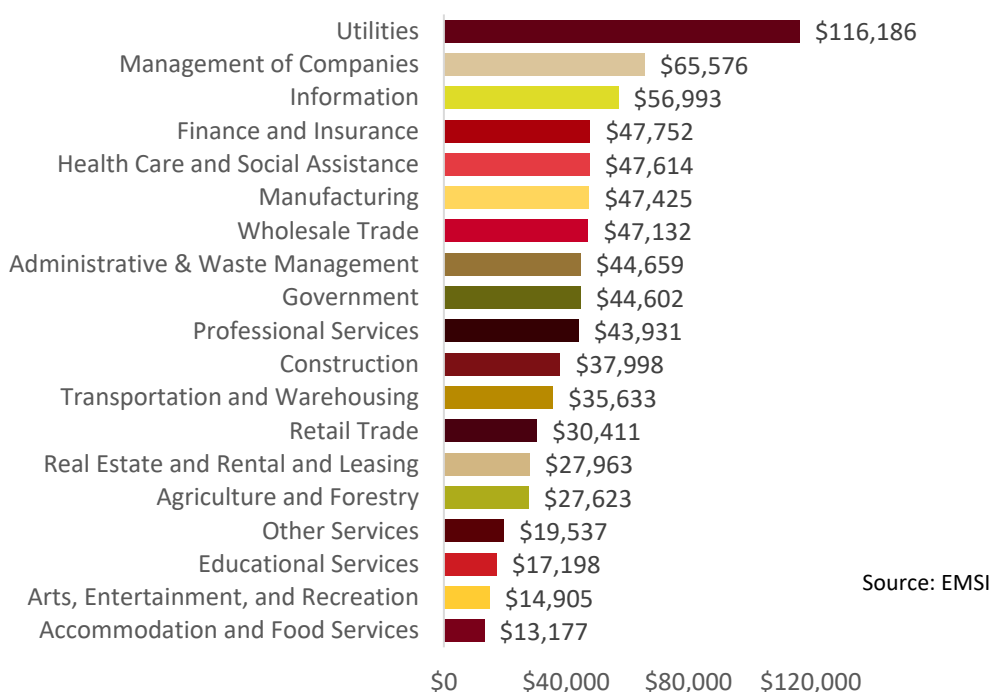
**Chart 9: Location Quotient by Industry, Vernon County, 2017**



The average earnings (across all industries) per job in Vernon County is \$40,500 (Chart 10). In comparison, Wisconsin’s average earnings per job is \$45,200. For the United States, it is \$49,600. Average earnings is calculated by dividing total industry earnings by the number of jobs. Total earnings includes wages, salaries, supplements (employee benefits, when provided), and proprietor income.

The highest average earnings are in utilities (\$116,200) and management of companies (\$65,600). Both of these types of jobs are areas of concentration for Vernon County. The lowest average earnings per job were in accommodation and food services (\$13,200) and arts, entertainment, and recreation (\$14,900). Since average earnings is total earnings divided by the number of workers, it would not be unusual to observe lower averages per job in sectors with higher levels of part-time workers (e.g., the service sector).

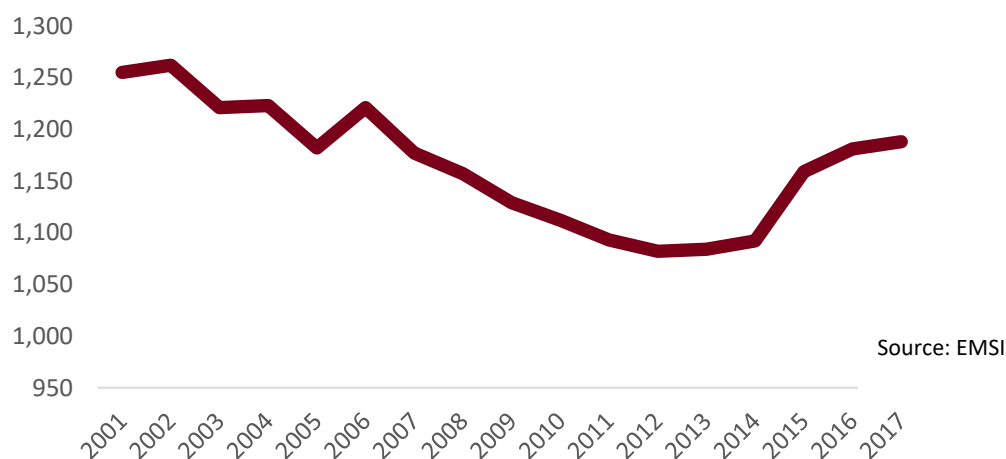
**Chart 10: Average Earnings Per Job, Vernon County, Wisconsin, 2017**



## The Retail Sector

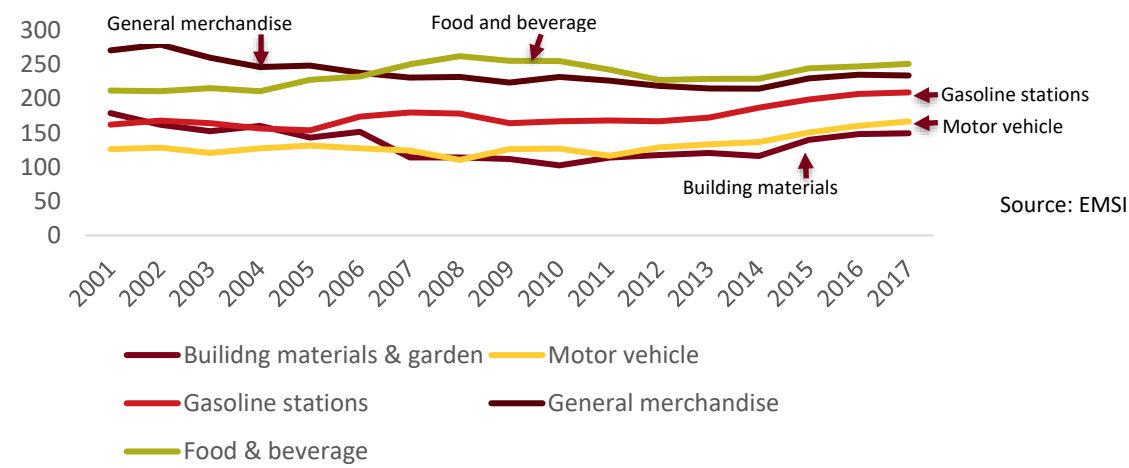
As mentioned, Viroqua Food Cooperative is part of Vernon County's retail trade sector. Between 2001 and 2017, the number of retail trade jobs dropped by 5 percent. Most of that decline occurred between 2006 and 2012, which is consistent with the effects of the Great Recession (Chart 11). The number of jobs in Vernon County's retail trade industry has increased since 2014.

**Chart 11: Retail Trade Employment, Vernon County, Wisconsin, 2001-2017**



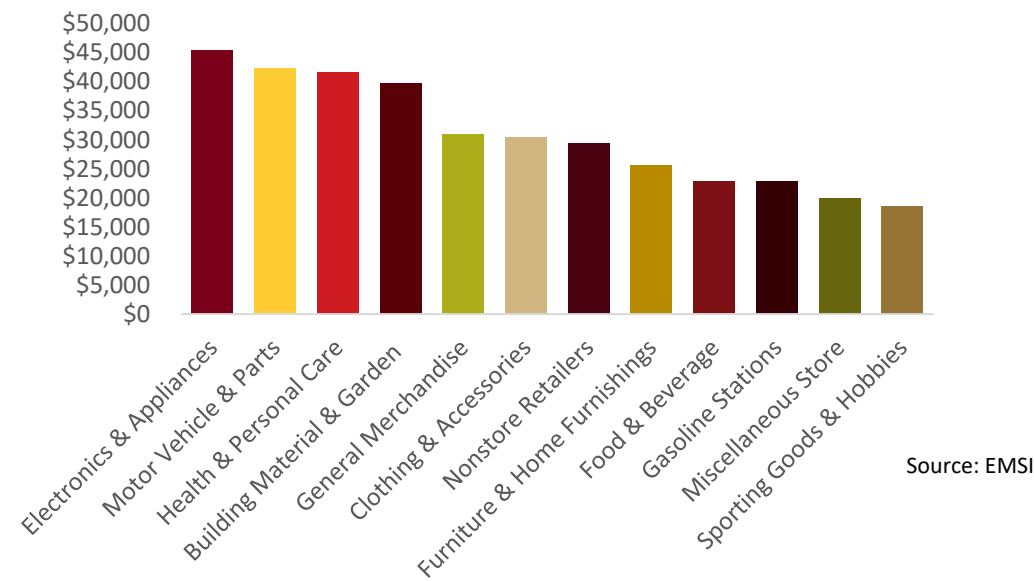
Food and beverage stores (including grocery stores) currently have the highest share of retail trade jobs in Vernon County (Chart 12). General merchandise has the second highest share of jobs.

**Chart 12: Employment by Select Retail Trade Sector, Vernon County, Wisconsin, 2001-2017**



Vernon County’s average earnings per job in the retail industry is \$30,400. The county’s overall average earnings per job is \$40,500. The highest average earnings are in the retail sectors of electronics and appliances, motor vehicles and parts, and health and personal care (Chart 13).

**Chart 13: Average Annual Earnings per Job by Retail Sector, Vernon County, Wisconsin, 2017**



As for staffing, 26 percent of the retail sales workforce are salespeople, followed by 18 percent as cashiers and 9 percent as stock clerks and order fillers (Table 18). The most common retail jobs do



not require any formal education and training is typically short-term and on the job. Thus, barriers to job entry are relatively low (making hiring easier). However, as of April 2018, unemployment was low in Wisconsin (2.9 percent), making competition for workers tight. Lower wage, lower skill positions may be more competitive, making hiring and retaining workers more difficult in the short-term.

**Table 18: Staffing Patterns, Retail Trade Industry, 2017**

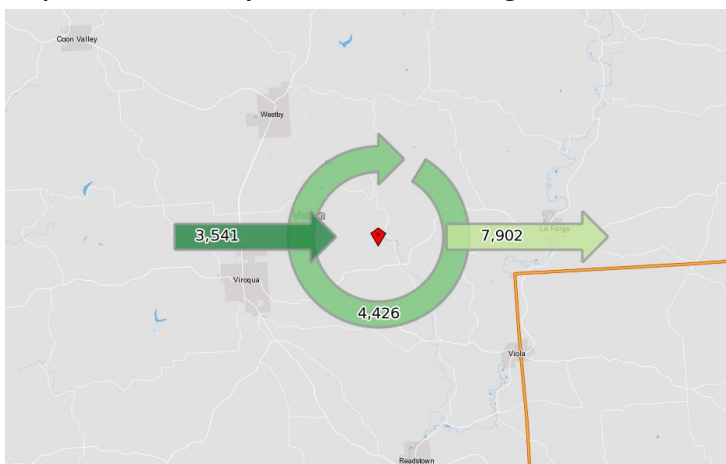
Occupation	Percent of U.S. Retail Workforce	2017 Median Hourly Earnings U.S.	2017 Median Hourly Earnings Vernon County	Typical Entry Level Education	Work Experience Required	Typical On-the-Job Training
Retail Salespersons	26.0%	\$11.03	\$11.27	No formal education	None	Short-term on the job
Cashiers	17.5%	\$9.71	\$9.40	No formal education	None	Short-term on the job
Stock Clerks and Order Fillers	8.4%	\$11.48	\$10.44	High school diploma or equivalent	None	Short-term on the job
First-Line Supervisors of Retail Sales Workers	7.9%	\$17.13	\$14.28	High school diploma or equivalent	Less than 5 years	None
Customer Service Representatives	2.4%	\$15.60	\$15.09	High school diploma or equivalent	None	Short-term on the job
Automotive Service Technicians and Mechanics	2.0%	\$16.50	\$13.22	Postsecondary non-degree	None	Short-term on the job

Source: EMSI

## Commuting Patterns

Vernon County appears to be an out-commuting county. In 2015, 7,900 people commuted out of the county for work (Map 1). Meanwhile, 3,500 people commuted in and 4,400 lived and worked in the county.

**Map 1: Vernon County Wisconsin, Commuting Patterns, 2015**



Source: On the Map, United States Census Bureau

Commuting patterns are important for two reasons. First, Viroqua Food Cooperative likely competes with other grocery and fresh food stores in communities where people work. Capturing sales from the 7,900 residents who work outside the county is critical. Second, Viroqua Food Cooperative has the opportunity to compete for the buying power of the 3,500 people who commute into the county. Providing convenient shopping for these commuters is an opportunity for increased sales.

## **SUPERMARKETS AND GROCERY STORES IN THE UNITED STATES**

According to IBISWorld<sup>7</sup>, “The Supermarkets and Grocery Stores industry retails a variety of household goods and edible grocery products, including fresh and prepared meals, poultry, and seafood, canned and frozen foods and fruits and vegetables.” The following summary of the industry is based on IBISWorld’s industry report.

### **Industry Outlook**

Supermarket and grocery store sales increased nationally between 2012 and 2017, driven by a strengthening economy. Consumers had increased disposable income to spend in the market. And economists expect disposable incomes to rise during the next five years, which should drive continued spending increases in supermarkets and grocery stores.

Competition is intense in the market. Mass merchants, such as Walmart and Costco, compete primarily on price. Fresh format stores, including Aldi and Trader Joe’s, provide consumers with fewer, store-branded items that are cheaper to produce. The rise of online grocery shopping will continue to drive competition. As a result, sales may rise in the market but profitability may drop.

Shifting consumer preferences are also critical. Consumers are moving toward premium, organic, all-natural foods. IBISWorld cites the statistic that 82 percent of households buy organic, and 14 percent of all fruits and vegetables purchased are organic. In a relatively stagnant market, organic and all-natural sales increased 8 percent in 2016 alone. Organics can also be profitable. Premiums on organics can range from 7 percent for spinach to 100 percent for eggs.

Millennials are also driving changes in consumer preferences. They tend to be health conscious and value driven, which may affect where and how they shop for groceries. They can also be price sensitive and less brand driven. They are pushing the trends toward shopping in stores with more limited but premium options.

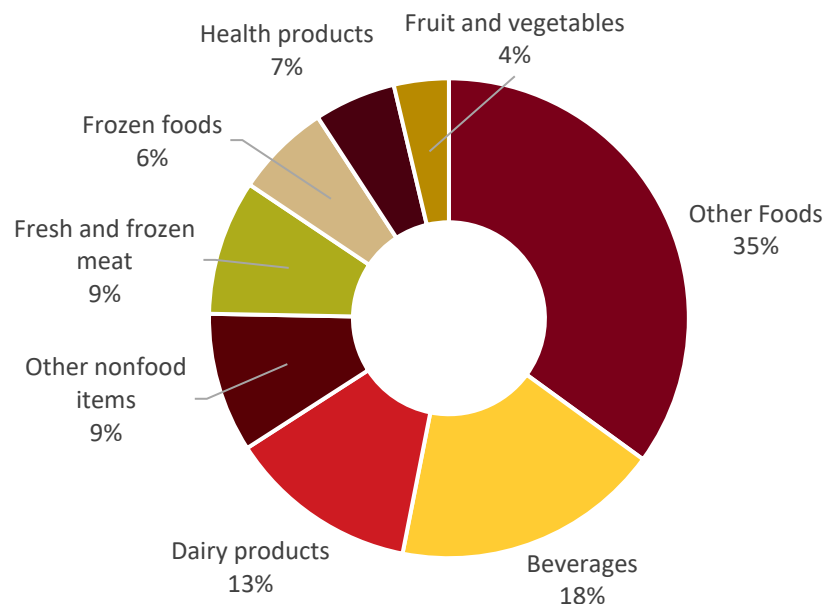
Convenience remains important for customers, and many consumers choose to shop in close proximity to work or home.

Product mix is also critical to success in the competitive supermarket and grocery store market. According to IBISWorld, 35 percent of sales are from “other foods.” The “other food” category includes bakery, snack foods, canned foods, and ethnic foods. This market segment has been growing in recent years. Beverages account for 18 percent of sales, followed by dairy products (Chart 14).

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<sup>7</sup> IBISWorld. (2017). *IBISWorld industry report 44511, supermarkets & grocery stores in the US*. Meghan Guattery.

**Chart 14: Market Share of Products, Supermarkets and Grocery Stores**



Source: IBISWorld

## Food Deserts

Of increasing importance in the United States is the presence of food deserts. Food deserts are low-income areas that lack access to healthy and affordable foods. Residents of these areas typically do not have direct access to a full-scale grocery store. Instead, they rely on convenience stores for their primary shopping. Barriers to a full-scale grocery store include physical, economic, and attitudinal. In rural areas, like Vernon County, these barriers might include long distances to drive, lack of a vehicle or public transportation to the grocery store, and products not meeting consumer budgets or preferences.<sup>8</sup>

The United States Department of Agriculture has identified food deserts in the United States. By definition, a food desert must meet two requirements: the area (here census tract<sup>9</sup>) must be low income and have low food access. The Economic Research Service provides a definition of each requirement.<sup>10</sup>

Low-income census tracts include those with a poverty rate of 20 percent or the median family income is 80 percent of the state's median family income.

Low-access census tracts include those with a significant number of people (500—or 33 percent of the tract's population) living more than one-half mile from a grocery store or supermarket in an

<sup>8</sup> Pine, A., & Bennett, J. (2014). Food access and food deserts: the diverse methods that residents of a neighborhood in Duluth, Minnesota use to provision themselves. *Community Development*, 45, 317-336.

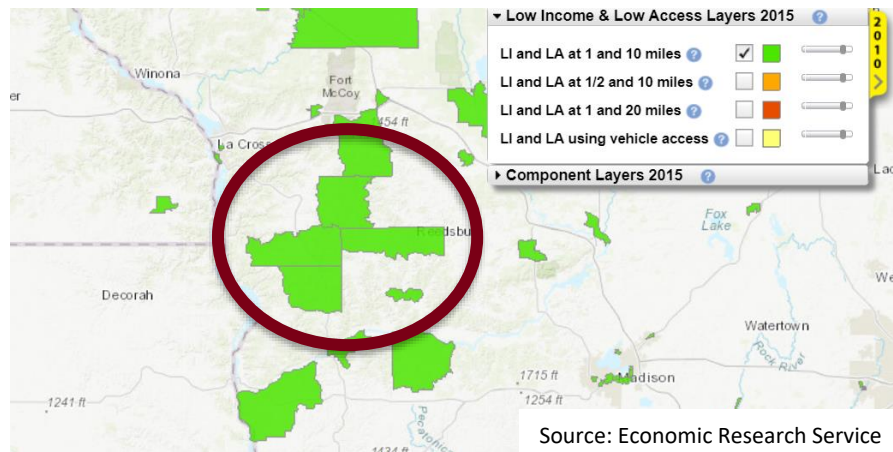
<sup>9</sup> According to the United States Census "Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people. A census tract usually covers a contiguous area; however, the spatial size of census tracts varies widely depending on the density of settlement. Census tract boundaries are delineated with the intention of being maintained over a long time so that statistical comparisons can be made from census to census. Census tracts occasionally are split due to population growth or merged as a result of substantial population decline."

<sup>10</sup> Economic Research Service. *Food access research atlas: documentation*. Retrieved from <https://www.ers.usda.gov/data-products/food-access-research-atlas/documentation/#indicators>.

urban area. For a rural area, they must live more than 10 miles from a grocery store or supermarket (Vernon County and its neighboring counties fall under the rural definition).

Map 2 illustrates food deserts in Southwestern Wisconsin. Vernon County has two census tracts that meet the definition of a food desert. Multiple census tracts around Vernon County also qualify as food deserts. Clearly, there is a need for access to healthy food options in and around Viroqua.

**Map 2: Food Deserts in Southwestern Wisconsin**



## Food Cooperatives in the United States

Food cooperatives have a long history in the United States, starting in the 1850s. The University of Wisconsin explored this trend and found food cooperatives have experienced periods of growth and decline, typically driven by consumer interest and participation. Cooperative members want their cooperatives to provide price, quality, and selection advantages.<sup>11</sup>

Preferring cooperatives for their fresh, healthy, natural, and organic food options, consumer demand has driven the industry's most recent wave of growth. The expansion of larger national and whole food stores, however, may threaten the success of smaller food cooperatives. Other threats include decline in member participation, lack of management skills, and inadequate financial capitalization.

Food cooperatives have a significant impact on the United States economy. In 2009, food cooperatives and buying clubs provided an estimated \$2.1 billion of sales revenue and employment for 15,000 Americans.

## NOTES ON THE ANALYSIS

The data, analysis, and findings described in this report are specific to the geography, period, and project requirements of the Viroqua Food Cooperative. Findings are not transferable to other jurisdictions. University of Minnesota Extension neither approves nor endorses the use or application of findings and other contents in this report by other jurisdictions.

## APPENDIX: DEFINITIONS AND TERMS

<sup>11</sup> Deller, S., Hoyt, A., Hueth, B., & Sundaram-Stukel, R. (2009). *Research on the economic impact of cooperatives*. Madison, Wisconsin: University of Wisconsin Center for Cooperatives. Retrieved from [http://reic.uwcc.wisc.edu/sites/all/REIC\\_FINAL.pdf](http://reic.uwcc.wisc.edu/sites/all/REIC_FINAL.pdf).

Special models, called input-output models, exist to conduct economic impact analysis. There are several input-output models available. IMPLAN (Impact Analysis for PLANning, Minnesota IMPLAN Group) is one such model. Many economists use IMPLAN for economic impact analysis because it can measure output and employment impacts, is available on a county-by-county basis, and is flexible for the user. IMPLAN has some limitations and qualifications, but it is one of the best tools available to economists for input-output modeling. Understanding the IMPLAN tool, its capabilities, and its limitations will help ensure the best results from the model.

One of the most critical aspects of understanding economic impact analysis is the distinction between the local and non-local economy. The local economy is identified as part of the model-building process. Either the group requesting the study or the analyst defines the local area. Typically, the study area (the local economy) is a county or a group of counties that share economic linkages. In this analysis, there are two study areas. The first is Vernon County, Wisconsin and the second is Wisconsin.

A few definitions are essential in order to properly read the results of an IMPLAN analysis. The terms and their definitions are provided below.

### **Output**

Output is measured in dollars and is equivalent to total sales. The output measure includes significant double counting. Think of corn, for example. The value of the corn is counted when it is sold to the mill and then again when it is sold to the dairy producers as a feed supplement. It is then counted again when the dairy producer sells the milk to the cheese manufacturer. And it is counted yet again when the cheese is sold. The value of the corn is built into the price of each of these items and then the sale of each of these items are added up to get total sales (or output).

### **Employment**

Employment includes full- and part-time workers and is measured in annual average jobs, not full-time equivalents (FTEs). IMPLAN includes total wage and salaried employees, as well as the self-employed, in employment estimates. Because employment is measured in jobs and not in dollar values, it tends to be a very stable metric.

### **Labor Income**

Labor income measures the value added to the product by the labor component. So, in the corn example, when the corn is sold to the mill, a certain percentage of the sale goes to the farmer for his/her labor. Then when the mill sells the corn as feed to dairy producers, it includes some markup in the price for its labor costs. These individual value increments for labor can be measured, which amounts to labor income. Labor income does *not* include double counting.

### **Direct Impact**

Direct impact is equivalent to the initial activity in the economy. In this study, it is spending by the Viroqua Food Cooperative, as detailed in this report.

### Indirect Impact

The indirect impact is the summation of changes in the local economy that occur due to **spending for inputs** (goods and services) by the business directly impacted. For instance, if employment at a food cooperative increases by 100 jobs, this implies a corresponding increase in sales at the store. As the store increases sales, it must also purchase more inputs, such as electricity, food supplies, and equipment. As the store increases purchases of these items, its suppliers must also increase production, and so forth. As these ripples move through the economy, they can be captured and measured. Ripples related to the purchase of goods and services are indirect impacts. In this study, indirect impacts are those associated with spending by the Viroqua Food Cooperative for operating items.

### Induced Impact

The induced impact is the summation of changes in the local economy that occur due to **spending by labor**. For instance, if employment at the food cooperative increases by 100 jobs, the new employees will have more money to spend to purchase housing, buy groceries, and go out to dinner. As they spend their new income, more activity occurs in the local economy. Induced impacts also include spending by labor generated by indirect impacts. So, if a store employee purchases services from a local tax preparer, spending of the tax preparer's wages would also create induced impacts. Primarily, in this study, the induced impacts are the economic changes related to spending by the Viroqua Food Cooperative's employees.

### Total Impact

The total impact is the summation of the direct, indirect, and induced impacts.

### Input-Output, Supply and Demand, and Size of Market

Care must be taken when using regional input-output models to ensure they are being used in the appropriate type of analysis. If input-output models are used to examine the impact of an industry so large that its expansion or contraction results in major supply and demand shifts, causing the prices of inputs and labor change, input-output can overstate the impacts or impacts. It is not likely the Viroqua Food Cooperative has an impact on national input prices. Hence, the model should reliably estimate the impacts.